**I CLAIM:**

1. An organogenesis method for growing at least a portion of a desired organ in a body of a human patient comprising:

   (a) Placing a genetic material capable of causing formation of said organ at a desired site in said body;

   (b) Directing and controlling organ formation in said body by placing a physiological medium capable of causing said body to reduce apoptosis and permit organ formation to proceed at a desired site in said body; and

   (c) Growing said organ in said body.

2. The method of claim 1, wherein said genetic material comprises a growth factor.

3. The method of claim 1 wherein said physiological medium is capable of inhibiting inflammation during organogenesis.

4. The method of claim 3, wherein said physiological medium is capable of inhibiting inflammation following organogenesis.

5. The method of claim 4, wherein said organogenesis is angiogenesis and said apoptosis is caused by Fas ligand (FasL) and said physiological medium contains an ingredient that blocks apoptosis.

6. The method of claim 5, wherein said ingredient comprises caspace inhibitor.

7. The method of claim 6, wherein said caspace comprises tri-peptide caspace inhibitor.

8. The method of claim 5, wherein said ingredient comprises FLICE- inhibitory protein.

9. The method of claim 6, wherein said physiological medium contains inhibitor of apoptosis proteins (IAPs) to regulate caspace activity.

10. The method of claim 9, wherein said apoptosis protein comprises XIAP.

11. The method of claim 9, wherein said protein comprises survivin.

12. The method of claim 9, wherein said apoptosis protein comprises cIAP1.

13. The method of claim 9, wherein said apoptosis protein comprises cIAP2.

14. The method of claim 5, wherein said ingredient comprises Fas-associated phosphatase-1 (FAP-1).

15. The method of claim 9, wherein said physiological medium contains TGF-beta to inhibit neutrophil-stimulatory effects of FasL.

16. The method of claim 1, wherein said physiological medium contains a supercharging ingredient to supercharge cellular environment, thereby activating cellular response.

17. The method of claim 16, wherein said supercharging ingredient contains an amino acid.

18. The method of claim 1, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said body after placing said genetic material and said physiological medium in said body and desired organ growth has commenced in the body.

19. The method of claim 18, wherein said organ growth essentially ceases.

20. The method of claim 18, wherein said organogenesis is angiogenesis, said organ comprises a blood vessel, and said organogenesis inhibitor is a member of the group consisting of antiangiogenic antithrombin III (aaATIII), 2-methoxyestradiol (2-ME), canstatin, pigment epithelial-derived factor (PEDF), cartilage-derived inhibitor (CDI), placental ribonuclease inhibitor, endostatin (collagen XVIII fragment), plasminogen activator inhibitor, fibronectin fragment, platelet factor-4 (PF4), gro-beta, prolactin 16kD fragment, heparinases, proliferin-related protein, heparin hexasaccharide fragment, retinoids, human chorionic gonadotropin (hCG), tetrahydrocortisol-S, interferon alpha/beta/gamma, thrombospondin-1, interferon inducible protein (IP-10), transforming growth factor-beta, interleukin-12 (IL-12), tumistatin,

kringle 5 (plasminogen fragment), vasculostatin, metalloproteinase inhibitors (TIMPs), vasostatin (caireticulin fragment), and admixtures thereof.

21. The method of claim 1, wherein said physiological medium augments organogenesis by turning on genes (expressing) in cells of the patient that induce organogenesis.

22. The method of claim 4, wherein said physiological medium augments organogenesis by turning on genes (expressing) in cells of the patient that induce organogenesis.

23. The method of claim 18, wherein said physiological medium augments organogenesis by turning on genes (expressing) in cells of the patient that induce organogenesis.

24. The method of claim 18, wherein said physiological medium contains a supercharging ingredient to supercharge cellular environment, thereby activating cellular response.

25. An organogenesis method for growing at least a portion of a desired organ in a body of a human patient comprising:

(a) placing a genetic material capable of causing formation of said organ at a desired site in said body; and

(b) directing and controlling organ formation in said body by placing a physiological medium capable of augmenting organogenesis in said body.

26. The method of claim 25, wherein said genetic material comprises a growth factor.

27. The method of claim 25, wherein said physiological medium augments organogenesis by turning on genes (expressing) in cells of the patient that induce organogenesis.

28. The method of claim 27, wherein organogenesis is angiogenesis and said physiological medium comprises an activator protein.

29. The method of claim 28, wherein said activator protein comprises hypoxia-inducing factor (HIF-1) in complex with CBP coactivator protein.

30. The method of claim 28, wherein said activator protein comprises hypoxia inducing factor (HIF-1a) in complex with CBP coactivator protein.

31. The method of claim 28, further comprising adding a hydroxyl group to an amino acid to disrupt the complex thereby halting the turning on of said genes in the cells of the patient that induce angiogenesis.

32. The method of claim 31, wherein said amino acid comprises asparine.

33. The method of claim 25, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said body after placing said genetic

material and said physiological medium in said body and desired organ growth has commenced in the body.

34. The method of claim 25, wherein said organ growth essentially ceases.

35. The method of claim 25, wherein said organogenesis is angiogenesis, said organ comprises a blood vessel, and said organogenesis inhibitor is a member of the group consisting of antiangiogenic antithrombin III (aaATIII), 2-methoxyestradiol (2-ME), canstatin, pigment epithelial-derived factor (PEDF), cartilage-derived inhibitor (CDI), placental ribonuclease inhibitor, endostatin (collagen XVIII fragment), plasminogen activator inhibitor, fibronectin fragment, platelet factor-4 (PF4), gro-beta, prolactin 16kD fragment, heparinases, proliferin-related protein, heparin hexasaccharide fragment, retinoids, human chorionic gonadotropin (hCG), tetrahydrocortisol-S, interferon alpha/beta/gamma, thrombospondin-1, interferon inducible protein (IP-10), transforming growth factor-beta, interleukin-12 (IL-12), tumistatin, kringle 5 (plasminogen fragment), vasculostatin, metalloproteinase inhibitors (TIMPs), vasostatin (caireticulin fragment), and admixtures thereof.

36. The method of claim 25, wherein said physiological medium contains a supercharging ingredient to supercharge cellular environment, thereby activating cellular response.

37. An organogenesis method for growing at least a portion of a desired organ in a body of a human patient comprising:

(a) placing a genetic material capable of forming said organ at a desired site in said body; and

(b) directing and controlling organ formation in said body by placing a physiological medium capable of supercharging cellular environment and thereby activating cellular response.

38. The method of claim 37, wherein said genetic material comprises a growth factor.

39. The method of claim 37, wherein said supercharging ingredient contains an amino acid.

40. The method of claim 39, wherein said amino acid is a member selected from the group consisting of alanine, valine, leucine, isoleucine, proline, methionine, phenylalanine, tryptophan, glycine, serine, threonine, cysteine, asparagine, glutamine, tyrosine, aspartic acid, glutamic acid, lysine, arginine, pyrrolysine, histidine, selenocysteine, and admixtures thereof.

41. The method of claim 37, wherein said supercharging ingredient contains glucose.

42. The method of claim 37, wherein said supercharging ingredient contains an antidiabetic insulin-like agent.

43. The method of claim 37, wherein said supercharging ingredient contains a hypoglycemic agent.

44. The method of claim 37, wherein said supercharging ingredient contains an antioxidant.

45. The method of claim 37, wherein said supercharging ingredient contains a gene.

46. The method of claim 45, wherein said gene comprises HOXB4.

47. The method of claim 37, wherein said supercharging ingredient contains a HOXB4 gene product.

48. The method of claim 37, wherein said supercharging ingredient contains a protein from the Bcl-2 family of proteins.

49. The method of claim 48, wherein said protein comprises Bax.

50. The method of claim 48, wherein said protein comprises Bak.

51. The method of claim 48, wherein said protein is pro-apoptotic.

52. The method of claim 48, wherein said protein is anti-apoptotic.

53. The method of claim 37, wherein said physiological medium acts upon a cellular organ.

54. The method of claim 53, wherein said cellular organ comprises mitochondrion.

55. The method of claim 37, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said body after placing said genetic material and said physiological medium in said body and desired organ growth has commenced in the body.

56. The method of claim 37, wherein said organ growth essentially ceases.

57. The method of claim 37, wherein said organogenesis is angiogenesis, said organ comprises a blood vessel, and said organogenesis inhibitor is a member of the group consisting of antiangiogenic antithrombin III (aaATIII), 2-methoxyestradiol (2-ME), canstatin, pigment epithelial-derived factor (PEDF), cartilage-derived inhibitor (CDI), placental ribonuclease inhibitor, endostatin (collagen XVIII fragment), plasminogen activator inhibitor, fibronectin fragment, platelet factor-4 (PF4), gro-beta, prolactin 16kD fragment, heparinases, proliferin-related protein, heparin hexasaccharide fragment, retinoids, human chorionic gonadotropin (hCG), tetrahydrocortisol-S, interferon alpha/beta/gamma, thrombospondin-1, interferon inducible protein (IP-10), transforming growth factor-beta, interleukin-12 (IL-12), tumistatin,

kringle 5 (plasminogen fragment), vasculostatin, metalloproteinase inhibitors (TIMPs), vasostatin (caireticulin fragment), and admixtures thereof.

58. A method for controlling the growth of a desired organ in the body of a human patient comprising:

(a) placing a genetic material capable of causing formation of said organ at a desired site in said body;

(b) growing said organ in said body; and

(c) inhibiting organ growth by placing an organogenesis inhibitor into said body.

59. The method of claim 58, wherein, said genetic material comprises a growth factor.

60. The method of claim 58, wherein said organ growth essentially ceases.

61. The method of claim 58, wherein said organogenesis is angiogenesis, said organ is a blood vessel, and said organogenesis inhibitor is a member of the group consisting of antiangiogenic antithrombin III (aaATIII), 2-methoxyestradiol (2-ME), canstatin, pigment epithelial-derived factor (PEDF), cartilage-derived inhibitor (CDI), placental ribonuclease inhibitor, endostatin (collagen XVIII fragment), plasminogen activator inhibitor, fibronectin fragment, platelet factor-4 (PF4), gro-beta, prolactin 16kD fragment, heparinases, proliferin-related protein, heparin hexasaccharide fragment, retinoids, human chorionic gonadotropin (hCG), tetrahydrocortisol-S,

interferon alpha/beta/gamma, thrombospondin-1, interferon inducible protein (IP-10), transforming growth factor-beta, interleukin-12 (IL-12), tumistatin, kringle 5 (plasminogen fragment), vasculostatin, metalloproteinase inhibitors (TIMPs), vasostatin (caireticulin fragment), and admixtures thereof.

62. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material and a physiological medium to form a mixture;

(c) placing said mixture at a desired site in a human body;

(d) forming a bud in said body; and

(e) growing at least a portion of an organ from said bud.

63. The method of claim 62, wherein said genetic material comprises a growth factor.

64. The method of claim 62, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said body at a desired site.

65. The method of claim 62, wherein an organ is grown from said bud.

66. The method of claim 62, wherein a suborgan is grown from said bud.

67. The method of claim 64, wherein said organ comprises a tooth.

68. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material and a physiological medium to form a mixture;

(c) forming a bud from said mixture;

(d) placing said bud at a desired site in said body; and

(e) growing said bud into at least a portion of said organ.

69. The method of claim 68, wherein said genetic material comprises a growth factor.

70. The method of claim 68, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said body at a desired site.

71. The method of claim 68, wherein said bud is grown into an organ.

72. The method of claim 68, wherein said bud is grown into a suborgan.

73. The method of claim 71, wherein said organ comprises a tooth.

74. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material and a physiological medium to form a mixture;

(c) forming a bud in said mixture;

(d) forming at least a portion of an organ in said mixture; and

(e) placing said at least portion of an organ at a desired site in said human body.

75. The method of claim 74, wherein said genetic material comprises a growth factor.

76. The method of claim 74, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said mixture following forming at least a portion of an organ in said mixture.

77. The method of claim 74, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said mixture following placing at least a portion of an organ at a desire site in said human body.

78. The method of claim 74, wherein said bud is grown into an organ.

79. The method of claim 74, wherein said bud is grown into a suborgan.

80. The method of claim 78, wherein said organ comprises a tooth.

81. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material to form a mixture;

(c) placing said mixture at a desired site in a human body;

(d) forming a bud in said body;

(e) growing at least a portion of an organ from said bud; and

(f) inhibiting organ growth by placing an organogenesis inhibitor into said body at a desired site.

82. The method of claim 81, wherein said genetic material comprises a growth factor.

83. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material to form a mixture;

(c) forming a bud from said mixture;

(d) placing said bud at a desired site in said body;

(e) growing said bud into at least a portion of said organ; and

(f) inhibiting organ growth by placing an organogenesis inhibitor into said body at a desired site.

84. The method of claim 83, wherein said genetic material comprises a growth factor.

85. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material to form a mixture;

(c) forming a bud in said mixture;

(d) forming at least a portion of an organ in said mixture;

(e) inhibiting organ growth by placing an organogenesis inhibitor into said mixture; and

(f) placing said at least a portion of an organ at a desired site in said human body.

86. The method of claim 85, wherein said genetic material comprises a growth factor.

87. A method of growing at least a portion of an organ at a desired site in a human body comprising:

(a) providing a human cell;

(b) contacting said cell with a genetic material to form a mixture;

(c) forming a bud in said mixture;

(d) forming at least a portion of an organ in said mixture;

(e) placing said at least a portion of an organ at a desired site in said human body; and

(f) inhibiting organ growth by placing an organogenesis inhibitor into said body at a desired site.

88. The method of claim 87, wherein said genetic material comprises a growth factor.

89. A method of growing an organ in a body of a human patient comprising inserting a genetic material and a physiological nutrient culture at a specific location of said body to induce the growth of an organ.

90. The method of claim 89, wherein said genetic material comprises a gene.

91. The method of claim 89, further comprising controlling said gene with use of a genetic switch.

92. The method of claim 89, wherein said genetic material comprises a growth factor.

93. The method of claim 89 further comprising placing an extracellular matrix around said genetic material.

94. A method of growing a suborgan in a body of a human patient comprising inserting a genetic material and a physiological nutrient culture at a specific location of said body to induce the growth of a suborgan.

95. The method of claim 94, wherein said genetic material comprises a gene.

96. The method of claim 95, further comprising controlling said gene with use of a genetic switch.

97. The method of claim 94, wherein said genetic material comprises a growth factor.

98. The method of claim 94 further comprising placing an extracellular matrix around said genetic material.

99. The method of claim 94, wherein said suborgan comprises a cell.

100. The method of claim 99, wherein said cell is an Islet cell.

101. The method of claim 94, wherein said suborgan comprises a group of cells.

102. The method of claim 101, wherein said group of cells are Islet cells.

103. The method of claim 94, wherein said suborgan comprises a neuron.

104. The method of claim 94, wherein said suborgan comprises dermis.

105. An organogenesis method for growing at least a portion of a desired organ in the body of a human patient comprising:

(a) Placing a genetic material capable of causing formation of a blood vessel at a desired site in said body;

(b) Placing genetic material capable of forming a desired organ at a desired in said body; and

(c) Causing said organ to grow in said body.

106. The method of claim 105, wherein said genetic material of above step (a) is contacted with a physiological nutrient culture.

107. The method of claim 105, wherein said genetic material of above step (a) is contacted with a physiological medium.

108. The method of claim 105, wherein said genetic material of above step (b) is contacted with a physiological nutrient culture.

109. The method of claim 105, wherein said genetic material of above step (b) is contacted with a physiological medium.

110. The method of claim 108, wherein said genetic material of above step (a) is contacted with a physiological nutrient culture.

111. The method of claim 109, wherein said genetic material of above step (a) is contacted with a physiological medium.

112. The method of claim 105, wherein said genetic material of above step (b) is contacted with a physiological medium.

113. The method of claim 105, wherein said genetic material of above step (b) is contacted with a physiological nutrient culture.

114. The method of claim 105, wherein said organ comprises a pancreas.

115. The method of claim 105, wherein said organ comprises a heart.

116. The method of claim 105, wherein said organ comprises a liver.

117. The method of claim 105, wherein said organ comprises a kidney.

118. The method of claim 105, wherein said organ comprises skin.

119. The method of claim 105, further comprising placing a physiological medium capable of causing said body to reduce apoptosis in said body and permitting organ formation to proceed at a desired site.

120. The method of claim 105, further comprising placing a physiological medium capable of augmenting organogenesis in said body.

121. The method of claim 105, further comprising placing a physiological medium capable of supercharging cellular environment and thereby activating cellular response to improve organogenesis.

122. The method of claim 105, further comprising inhibiting organ growth by placing an organogenesis inhibitor into said body after placing said genetic material and said physiological medium in said body and desired organ growth has commenced in the body.

123. An organogenesis method for growing at least a portion of a desired organ in the body of a human patient comprising:

(a) Placing a genetic material capable of causing formation of said organ at a desired site in said body;

(b) Directing and controlling organ formation in said body by placing a physiological medium capable of causing said body to become pro-apoptotic to induction and formation of said desired organ; and

(c) Growing said desired organ in said body.

124. The method of claim 123, wherein said genetic material comprises a growth factor.

125. An organogenesis method for growing at least a portion of a desired organ in the body of a human patient comprising:

(a) Placing a genetic material capable of causing formation of said organ at a desired site in said body;

(d) Directing and controlling organ formation in said body by placing a physiological medium capable of causing said body to become anti-apoptotic to induction and formation of said desired organ; and

(e) Growing said desired organ in said body.

126. The method of claim 125, wherein said genetic material comprises a growth factor.

127. An organogenesis method for growing at least a portion of a desired organ in the body of a human patient comprising:

(a) Placing a genetic material capable of causing formation of said organ at a desired site in said body;

(b) Directing and controlling organ formation in said body by placing a physiological medium capable of causing said body to become agonistic to induction and formation of said desired organ; and

(c) Growing said desired organ in said body.

128. The method of claim 127, wherein said genetic material comprises a growth factor.

129. An organogenesis method for growing at least a portion of a desired organ in the body of a human patient comprising:

(a) Placing a genetic material capable of causing formation of said organ at a desired site in said body;

(b) Directing and controlling organ formation in said body by placing a physiological medium capable of causing said body to become antagonistic to induction and formation of said desired organ; and

(c) Growing said desired organ in said body.

130. The method of claim 129, wherein said genetic material comprises a growth factor.

131. The method of claim 25, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a human sex organ.

132. The method of claim 131 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and desired blood vessel growth has commenced in the body.

133. The method of claim 131, wherein said human sex organ comprises a penis.

134. The method of claim 131, wherein said human organ comprises a female breast.

135. The method of claim 131, wherein said human sex organ comprises an ovary.

136. The method of claim 37, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a human sex organ.

137. The method of claim 136 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and said desired blood vessel growth has commenced.

138. The method of claim 136, wherein said human sex organ comprises a penis.

139. The method of claim 136, wherein said human sex organ comprises a female breast.

140. The method of claim 136, wherein said human sex organ comprises an ovary.

141. The method of claim 125, wherein organogenesis comprises angiogenesis and blood vessels are formed proximate to a human sex organ.

142. The method of claim 141 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and said desired blood vessel growth has commenced.

143. The method of claim 141, wherein said human sex organ comprises a penis.

144. The method of claim 141, wherein said human sex organ comprises a female breast.

145. The method of claim 141, wherein said human sex organ comprises an ovary.

146. The method of claim 127, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a human sex organ.

147. The method of claim 146 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and said blood vessel growth has commenced.

148. The method of claim 146, wherein said human sex organ comprises a penis.

149. The method of claim 146, wherein said human sex organ comprises a femal breast.

150. The method of claim 146, wherein said human sex organ comprises an ovary.

151. The method of claim 25, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a wound.

152. The method of claim 151 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and desired blood vessel growth has commenced in the body.

153. The method of claim 37, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a wound.

154. The method of claim 153 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and desired blood vessel growth has commenced in the body.

155. The method of claim 125, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a wound.

156. The method of claim 155 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and desired blood vessel growth has commenced in the body.

157. The method of claim 127, wherein said organogenesis comprises angiogenesis and blood vessels are formed proximate to a wound.

158. The method of claim 157 further comprising inhibiting blood vessel growth by placing an angiogenesis inhibitor in said body after placing said genetic material and said physiological medium in said body and desired blood vessel growth has commenced in the body.